Complete Summary

GUIDELINE TITLE

Blood pressure control: targets.

BIBLIOGRAPHIC SOURCE(S)

Gillin A. Blood pressure control: targets. Nephrology 2006 Apr;11(S1):S55-9.

Gillin A. Blood pressure control: targets. Westmead NSW (Australia): CARI - Caring for Australasians with Renal Impairment; 2005 Oct. 8 p. [11 references]

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Chronic kidney disease
- End-stage kidney disease

GUIDELINE CATEGORY

Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine

Nephrology
Pediatrics

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To evaluate the evidence of differing blood pressure targets for differing severity/cause of chronic kidney disease in preventing progression

TARGET POPULATION

Adults and children with chronic kidney disease

INTERVENTIONS AND PRACTICES CONSIDERED

1. Reduction of blood pressure to targets levels (based on assessment of proteinuria)
2. Target blood pressure for paediatric patients with progressive kidney disease was considered but not recommended.

MAJOR OUTCOMES CONSIDERED

- Blood pressure
- Glomerular filtration rate
- Urinary protein excretion rate
- Serum creatinine concentration
- Progression to end-stage kidney disease
- Mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Databases searched: MeSH terms and text words for chronic kidney disease were combined with MeSH terms and text words for angiotensin II antagonists, Angiotensin converting enzyme (ACE) inhibitors and blood pressure. These were then combined with MeSH terms and text words for locating randomised controlled trials. The search was carried out in Medline (1966 – November Week 1, 2004). The Cochrane Renal Group Register of randomised controlled trials was also searched for any additional relevant trials not indexed in Medline.

Date of searches: 12 November 2004.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Recommendations of Others. Recommendations regarding blood pressure control targets in chronic kidney disease from the following groups were discussed: JNC VI, Hypertension Management for Doctors (2004), Kidney Disease Outcomes Quality Initiative, UK Renal Association, Canadian Society of Nephrology, European Best Practice Guidelines, and VA Primary Care Guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the levels of evidence (I–IV) can be found at the end of the "Major Recommendations" field.

Guidelines

a. Lower systolic blood pressure (SBP) minimizes the risk of progression to end-stage kidney disease (ESKD), especially with proteinuria. (Level II evidence)
b. A target blood pressure (BP) of < 125/75 mmHg (or mean BP < 92 mmHg) if proteinuria > 1g/24 hours, may be beneficial. (Level II evidence)
c. A target BP of < 130/80 mmHg (or mean BP < 97 mmHg) if proteinuria is 0.25 – 1g/24 h, may be beneficial. (Level II evidence)
d. Target BP should be < 130/85 mmHg (or mean BP < 100 mmHg) if proteinuria < 0.25 g/24 hours. (Level II evidence) However, there may be other potential benefits of achieving lower BP than a mean of 100 mmHg with respect to reduced cardiovascular risk.

There is no evidence concerning Target BP for paediatric patients with progressive kidney disease.

Suggestions for Clinical Care

(Suggestions are based on Level III and IV evidence)

There is evidence for a lower BP target with greater degrees of proteinuria (> 1 g/day). A precise goal below 130/80 mmHg is not clear. These patients should be carefully monitored.

Definitions:

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate management of blood pressure in patients with chronic kidney disease

POTENTIAL HARMS

Not stated

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Apr

GUIDELINE DEVELOPER(S)

Caring for Australasians with Renal Impairment - Disease Specific Society

SOURCE(S) OF FUNDING

Industry-sponsored funding administered through Kidney Health Australia

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Author: Adrian Gillin

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All guideline writers are required to fill out a declaration of conflict of interest.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Caring for Australasians with Renal Impairment Web site.

Print copies: Available from Caring for Australasians with Renal Impairment, Locked Bag 4001, Centre for Kidney Research, Westmead NSW, Australia 2145

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- The CARI guidelines. A guide for writers. Caring for Australasians with Renal Impairment. 2006 May. 6 p.

Electronic copies: Available from the Caring for Australasians with Renal Impairment (CARI) Web site.

PATIENT RESOURCES

None available

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